

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
TYLER DIVISION**

**NETWORK-1 SECURITY SOLUTIONS, §
INC. §**

Plaintiff, §

vs. §

CISCO SYSTEMS, INC., ET AL §

Defendants. §

CASE NO. 6:08CV30

MEMORANDUM OPINION AND ORDER

Before the Court is Plaintiff Network-1's Motion to Exclude Opinions and Testimony of Dr. Robert Colwell (Docket No. 340). Having considered the parties' written submissions and oral arguments, the Court **GRANTS** the motion.

BACKGROUND

On February 2, 2008, Network-1 Security Solutions, Inc. ("Network-1") brought suit against Cisco Systems, Inc., Cisco-Linksys, L.L.C., 3Com Corporation, Adtran, Inc., Enterasys Networks, Inc., Extreme Networks, Inc., and Foundry Networks, Inc. (collectively, "Defendants") alleging infringement of U.S. Patent No. 6, 218,930 (the "'930 Patent"). The '930 Patent relates to an apparatus and method for remotely powering access equipment over a 10/100 switched ethernet network.

On December 3, 2010, the Court held a claim construction hearing on the disputed terms of the '930 Patent. On February 16, 2010, the Court construed the term "low level current" to mean "a current sufficient to cause the access device to start up but not sufficient to sustain the start up"

and the term “preselected condition” to mean “a parameter of the voltage on the signaling pair that indicates whether an access device is able to accept remote power from the data node.” Network-1 moves to exclude certain opinions of Dr. Robert Colwell, Defendants’ infringement expert, because he misapplies the Court’s constructions of these terms.

APPLICABLE LAW

“[T]he court determines the scope and meaning of the patent claims asserted.” *Cybor Corp. v. FAS Techs., Inc.*, 138 F.3d 1448, 1456 (Fed. Cir. 1998) (en banc) (citing *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 371–73 (1996)). “[T]he law is clear that the judge . . . is to construe the claims.” *Id.* “Infringement analysis involves a two-step process: the court first determines the meaning of disputed claim terms and then compares the accused device to the claims as construed.” *Wavetronix LLC v. EIS Elec. Integrated Sys.*, 573 F.3d 1343, 1354 (Fed. Cir. 2009) (citing *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 976 (Fed. Cir. 1995) (en banc)). An expert’s infringement opinion must use “the claim construction adopted by the court.” See *Intellectual Sci. & Tech., Inc. v. Sony Elecs., Inc.*, 589 F.3d 1179, 1183 (Fed. Cir. 2009) (citing *Arthur A. Collins, Inc. v. N. Telecom Ltd.*, 216 F.3d 1042, 1047 (Fed. Cir. 2000)).

“[C]laims ‘must be read in view of the specification, of which they are a part.’” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1315 (Fed. Cir. 2005) (en banc) (quoting *Markman*, 52 F.3d at 979). “[T]he specification ‘is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.’” *Id.* (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)); *Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1325 (Fed. Cir. 2002). But, “[a]lthough the specification may aid the court

in interpreting the meaning of disputed claim language, particular embodiments and examples appearing in the specification will not generally be read into the claims.”” *Comark Commc’ns, Inc. v. Harris Corp.*, 156 F.3d 1182, 1187 (Fed. Cir. 1998) (quoting *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 1571 (Fed. Cir. 1988)); *see also Phillips*, 415 F.3d at 1323.

ANALYSIS

Low Level Current

The ’930 Patent specification describes an illustrative, preferred embodiment where an access device 10 has an internal DC-DC switching supply. ’930 Patent, col. 2:40–42. To detect whether access device 10 is capable of accepting remote power, a “low level current” is delivered to the network interface and a voltage drop in the return path 20 is measured. ’930 Patent, col. 2:66–3:2. Depending on the configuration of the access device 10, the low level current evokes one of three responses by the access device 10: no voltage drop, a fixed voltage drop, or a varying level voltage drop. ’930 Patent, col. 3:2–4. In the preferred embodiment, a particular type of varying voltage level drop known as a “sawtooth” waveform indicates that the access device can accept remote power. ’930 Patent, col. 3:12–17.

A determination as to whether a “low level current” is being delivered is based on whether the access device produces a detectable response, but is unable to become active. *Network-1 Sec. Solutions, Inc. v. Cisco Sys. Inc.*, Case No. 6:08-cv-30, Memorandum Opinion & Order, at 16 (Docket No. 251) (E.D. Tex. Feb. 16, 2010) (“Order”).¹ The “only objective benchmark” described

¹ The Court’s analysis cites to the ’930 Patent, col. 2:66–3:2. The description in the ’930 Patent that follows in column 3:3–13 provides further details in support of the Court’s analysis and affords the basis for the Court’s construction: “[a]part from the preferred embodiment, where the presence of a dc-dc power supply produces a sawtooth waveform,” Order at 16. Further, the Court’s analysis should be understood to be set against

in the '930 Patent specification to guide one skilled in the art in determining whether an access device can accept remote power is a detectable response in the form of a varying voltage level. The Court did not suggest in any way that a detectable response must be the illustrative varying voltage level described in the '930 Patent specification.

Network-1 moves to exclude the opinions and testimony of Dr. Colwell because he does not apply the Court's claim construction for the term "low level current" in his non-infringement opinions. Instead, Network-1 asserts that Dr. Colwell assumed and concluded that to meet the "low level current" limitation, a current to the access device must result in a DC-DC power supply in the access device producing a sawtooth waveform. NETWORK-1's MOT. at 3–4. Defendants counter that Dr. Colwell found a need to interpret the Court's claim construction to ascertain the meaning of the term "start up."² DEFENDANTS' RESP. at 1–2. Defendants argue that Dr. Colwell found that "start up" in the term "low level current" would mean "beginning operation of the DC-DC converter (a 'DC-DC switching supply') of the access device." *Id.* at 3.

Dr. Colwell failed to properly read the Court's analysis in evaluating the Court's construction of "low level current." First, Dr. Colwell concluded that "start up" is limited to the varying level voltage is produced because the DC-DC switching supply in the access device of the preferred embodiment. Accordingly, Dr. Colwell limits the Court's construction of "low level current" for purposes of determining infringement to delivery of current to the access device that is sufficient to

Claim 6's preamble affirmatively specifying "remotely powering access equipment in a data network." The claim, as written, presumes an access device that is capable of accepting remote power.

² Notably, the Court adopted Defendants' proposed construction. At no time did Defendants indicate that the use of "start up" in their proposed claim construction might present any ambiguity in its application for purposes of determining infringement of the '930 Patent claims.

cause the DC-DC converter in a powered device (PD) to begin operation (i.e., reach steady state operation at its rated voltage output). Based on his application of “start up” in the term “low level current,” Dr. Colwell departs from the Court’s construction for “low level current” and restricts the Court’s construction to the preferred embodiment disclosed in the ’930 Patent.

Second, the construction of “low level current” references start up of the “access device.” The Court’s construction of “access device” is “a device that can receive and transmit data over a network.” Order at 7. Thus, an access device, as exemplified in the ’930 Patent specification, is a device that can be connected to a network. Data is necessarily received and transmitted over a network by a connection to an access point or node. In the illustrative embodiment of the ’930 Patent, an access device can be connected to an Ethernet network. Accordingly, the Court’s claim construction for “low level current” specifies that the proper frame of reference for “start up” of an access device connected to a network is in the context of the access device existing as an electrical load at its end of the network cable connecting to an access point or node. The fundamental error in Dr. Colwell’s interpretation of the Court’s claim construction for “low level current” is that he limits the meaning of “start up” to the preferred embodiment where the DC-DC switching power supply internal to the access device is the electrical load at the access device end of the network cable. Thus, Dr. Colwell incorrectly concludes that a “person of ordinary skill in the art would consider the term ‘start up’ in the Court’s claim construction and the ’930 Patent to mean beginning

operation of the DC-DC converter (a ‘DC-DC switching supply’) of the access device.”

DEFENDANTS’ RESP. EXHIBIT 3 at ¶ 330 (Colwell Expert Report).³

The error in Dr. Colwell’s reading of the Court’s construction of “low level current” carries over into his infringement analysis. Dr. Colwell opines that the accused products do not use a “low level current” as required by Claims 6 and 9 of the ’930 Patent because the DC-DC converter of the accused powered device (PD) products remains turned off during the detection and classification steps. *Id.* at ¶ 332. Dr. Colwell reaches his opinion based on his incorrect reading of the Court’s construction of “low level current” as requiring a current sufficient for the PD’s internal DC-DC converter to begin operation. *Id.* at ¶ 330, 331, 357. Dr. Colwell’s opinion is also flawed because it fails to evaluate the “low level current” limitation in regard to access device start up in the context of what load is presented by the PD at its end of a network cable. The “access device” limitation, as construed by the Court, requires such consideration in making a determination as to the presence or absence of the “low level current” limitation.

Defendants contend that Dr. Colwell has opinions on “low level current” apart from those based on his interpretation that “start up” means beginning operation of a DC-DC switching supply. DEFENDANTS’ RESP. at 9. Defendants identify seven alternative opinions by Dr. Colwell that allegedly, independently support a finding of non-infringement because the “low level current” claim limitation is not met by the accused infringing devices. *Id.* at 9–10. Dr. Colwell’s alternative

³ According to Dr. Colwell, Dr. Knox states that “the ‘start up’ of a PD (access device) is the process that it goes through as it proceeds from no power, to the point where it becomes fully operational (functions for its intended purpose).” Colwell Expert Report at ¶ 336. Further, Dr. Colwell states that Dr. Knox contends that “to qualify as a ‘low level current,’ the current must merely ‘stimulate a response from the PD (access device) that can be returned to the PSE [power sourcing equipment] and sensed by the circuitry in the PSE.’ *See id.* Dr. Knox’s analysis is consistent with the Court’s analysis for and its construction of “low level current.”

opinions are all based on his flawed reading of “low level current,” which includes “access device” within the term. Dr. Colwell incorrectly limits the construction of “low level current” to be in relation to start up of a DC-DC switching converter internal to the access device. Thus, Dr. Colwell’s alternative opinions improperly compare the accused infringing devices to various aspects of the preferred embodiment of the ’930 Patent.⁴

Accordingly, the Court **GRANTS** the motion as to Dr. Colwell’s opinions regarding the “low level current” claim limitation. Specifically, Dr. Colwell’s opinions and his support for them set forth in his report in paragraphs 328–337, 346–350, and 356–375 are excluded.

Preselected Condition

Network-1 also moves to exclude Dr. Colwell’s opinions about the claim term “preselected condition.” NETWORK-1’S MTN. at 10. Network-1 contends that Dr. Colwell offers a non-infringement opinion that is based on comparing the accused devices to the preferred embodiment of the ’930 Patent. *Id.* at 11–15. Defendants counter that Dr. Colwell did not form any opinions of non-infringement based on the “preselected condition” claim limitation. DEFENDANTS’ RESP. at 10. Network-1 replies that, because Defendants represent in their opposition that Dr. Colwell did not express any non-infringement opinions relating to the term “preselected condition,” Defendants do not oppose Network-1’s motion. NETWORK-1’S REP. at 5.

Defendants state that Dr. Colwell did not express any non-infringement opinions in his expert report about the term “preselected condition” and do not respond to Network-1’s reply that

⁴ While five of Dr. Colwell’s alternative opinions relate to his definition of “start up” as beginning operation of the DC-DC converter of the access device, the other two opinions relate to his restriction on the Court’s construction of “low level current” to be only a single current and to require a 20mA current for start up.

Defendants do not oppose the motion. Accordingly, the Court **GRANTS** the motion as to any non-infringement opinions Dr. Colwell has based on reading the term “preselected condition” as being either a fixed voltage drop, no voltage drop, or a varying voltage level drop such as a sawtooth waveform produced by a DC-DC switching power supply.

CONCLUSION

Accordingly, Plaintiff Network-1’s Motion to Exclude Opinions and Testimony of Dr. Robert Colwell is **GRANTED**. The Court **ORDERS** that Dr. Colwell shall not offer any opinions or testimony regarding the terms “low level current” or “preselected condition.”

So ORDERED and SIGNED this 30th day of June, 2010.

A handwritten signature in black ink, appearing to read "LEONARD DAVIS", is written over a horizontal line. The signature is fluid and cursive, with a large, stylized initial 'L' on the left and a smaller 'D' on the right.

**LEONARD DAVIS
UNITED STATES DISTRICT JUDGE**